

## STATIONARY SOURCE PERMIT TO OPERATE

This permit supersedes your permit dated August 23, 2006.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Brunswick Box Company, Inc.  
852 Planters Road  
Lawrenceville, Virginia 23868  
Registration No.: 30459

is authorized to operate

a manufacture of wood pallets, skids, boxes, colored mulch, and  
chemically treat lumber facility

located at

852 Planters Road  
Lawrenceville, Virginia 23868

in accordance with the Conditions of this permit.

Approved on **DRAFT**.

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Robert J. Weld  
Deputy Regional Director

Permit consists of 9 pages.  
Permit Conditions 1 to 29.

**INTRODUCTION**

This permit approval is based on the permit application dated April 11, 1995, January 27, 1998, July 29, 1999, including amendment information dated January 2, 2002, March 28, 2006, May 10, 2006, June 2, 2006, June 22, 2006, and June 23, 2006. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

**PROCESS REQUIREMENTS**

1. **Equipment List** - Equipment at this facility consists of the following:

<b>Equipment permitted prior to the date of this permit</b>				
<b>Reference No.</b>	<b>Equipment Description</b>	<b>Manufacturing Date</b>	<b>Rated Capacity</b>	<b>Original Permit Date</b>
1	Newman Planer	1980	30,000 linear ft	07/08/2002
2	Brewer Arbor	1984	2,700 linear ft	07/08/2002
3	Brewer Band	1994	6,000 linear ft	07/08/2002
4	Newman Notcher	1984	240 linear ft	07/08/2002
5	Newman Chamfer	1984	4,500 linear ft	07/08/2002
6	Montgomery Hog	1994	60,000 linear ft	07/08/2002
7	McDonough Resaw	1984	18,000 linear ft	07/08/2002
8	Hazel Thorn Stake Pointer	1982	200 pieces/hr	07/08/2002
9	Industrial 510R Cutback Saw	1977	600 pieces/hr	07/08/2002
10	Hermance 300 Rip Saw	1967	240 pieces/hr	07/08/2002
11	Delta Radial Arm Saw	1994	50 pieces/hr	07/08/2002
12	Boice Crane MP54 Drill Press	1980	120 pieces/hr	07/08/2002
13	Hazel Thorn J-90 Old Notcher	1984	240 linear ft	07/08/2002
14	Yates-American V-36 Band Saw	1984	120 pieces/hr	07/08/2002
15	Pistorious DC/12A Clip Corner Saw	1976	720 pieces/hr	07/08/2002
16	Dip Tank (Homemade 5'x5'x10') (approximately 1309 gallons)	1984	120 pieces/hr	07/08/2002
66	McDonough Resaw	1969	5000 bd ft/hr	8/23/2006
156	KPV Block Saw	1994	300 bd ft/hr	8/23/2006
244	Rotochopper Grinder	2003	460 hp	8/23/2006
273	Kiln Treat Chamber #1 (propane)	2003	1.5 MMBtu/hr	8/23/2006
315	Homemade Panel Saw	Unknown	700 bd ft/hr	8/23/2006
318	Kiln Treat Chamber #2 (propane)	2005	1.8 MMBtu/hr	8/23/2006

2. **Emission Controls** – Particulate and PM-10 emissions from the wood cutting and production of pallets, boxes, skids, and lumber shall be controlled by two Koger Air cyclones. The cyclones shall be provided with adequate access for inspection and shall be in operation when the wood cutting and production of pallets, boxes, skids, and lumber processes are operating.  
(9 VAC 5-80-850)
3. **Emission Controls** – Particulate and PM-10 emissions from the Rotochopper Grinder shall be controlled by wet suppression. The wet suppression shall be provided with adequate access for inspection and shall be in operation when the Rotochopper Grinder is operating.  
(9 VAC 5-80-850 and 9 VAC 5-50-260)
4. **Emission Controls** - Emissions from the 5'X5'X10' homemade dip tank used in the process of treating lumber shall be controlled by covering the 5'X5"x10' homemade dip tank whenever the tank is not in use. Hereafter, the 5'X5'X10' homemade dip tank shall be referred to as the wood treatment tank.  
(9 VAC 5-80-850 and 9 VAC 5-50-260)
5. **Emission Controls** - Emissions from the wood treatment tank shall be controlled by covering the tank with a sealed lid. The tank shall be provided with adequate access for inspection. Failure to adequately cover the wood treatment tank shall be considered credible evidence of the exceedance of permitted emission limits and may result in enforcement action.  
(9 VAC 5-80-850 and 9 VAC 5-50-260)
6. **Fugitive Emission Controls** – Fugitive emission controls shall include the following, or equivalent, as approved by DEQ:  
Installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.
  - b. Open equipment for conveying or transporting materials likely to create objectionable air pollution when airborne shall be covered, or treated in an equally effective manner at all times when in motion.
  - c. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt, product, or raw material spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.  
(9 VAC 5-50-90 and 9 VAC 5- 80-1180)
7. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.  
(9 VAC 5-50-20 F and 9 VAC 5-80-1180)
8. **Monitoring Observations** – Monthly and annual inspections shall be performed on the two Koger Air cyclones and records shall be kept by the facility. Monthly inspection records shall include any observations, leaking or problem areas, and corrective action taken by the facility. Annual inspections records shall include observations on the structural integrity of each cyclone, problems, and/or repairs. Annual inspections should be performed by an independent company. If annual inspections are performed by trained and/or certified staff, written inspection procedures shall be followed, maintained on site, and available for review. Staff training and/or certification records shall be kept on site and available for review.  
(9 VAC 5-80-850)

## **OPERATING LIMITATIONS**

9. **Throughput** - The throughput of wood for the entire facility shall not exceed 28,125 tons per year (12,500,000 board feet per year), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)
10. **Throughput** - The throughput of the wood preservative chemical M-Gard W550 (or equivalent) used in the dip tank for the process of treating lumber shall not exceed 1,600 gallons per year (6.4 tons per year), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)
11. **Fuel** - The approved fuel for the Rotochopper Grinder is diesel. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-850)
12. **Fuel Throughput** - The Rotochopper Grinder shall consume no more than 41,786 gallons of diesel fuel, per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-850)
13. **Fuel** - The distillate oil shall meet the specifications below:  
  
DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:  
Maximum sulfur content per shipment: **0.5%**  
  
(9 VAC 5-80-850)
14. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the distillate oil was received;
  - c. The quantity of distillate oil delivered in the shipment;
  - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil;
  - e. The sulfur content of the distillate oil.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 12. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.  
(9 VAC 5-80-850)

## **EMISSION LIMITS**

15. **Process Emission Limits** - Emissions from the woodworking operations as exhausted through the two Koger cyclones shall not exceed the limits specified below:

Particulate Matter	23.8 lbs/hr 0.05 gr/dscf	0.6 tons/yr
PM-10	23.8 lbs/hr 0.05 gr/dscf	7.1 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 2 and 8.  
(9 VAC 5-80-850 and 9 VAC 5-40-2270 B)

16. **Process Emission Limits** - Emissions from the Rotochopper Grinder shall not exceed the limits specified below:

Particulate Matter	1.0 lbs/hr	2.5 tons/yr
PM-10	1.0 lbs/hr	2.5 tons/yr
Sulfur Dioxide	0.9 lbs/hr	2.4 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	14.3 lbs/hr	35.7 tons/yr
Carbon Monoxide	3.1 lbs/hr	7.7 tons/yr
Volatile Organic Compounds	1.0 lbs/hr	2.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 3, 11, and 12.  
(9 VAC 5-80-850)

17. **Facility wide Emission Limits** - Total emissions from the facility shall not exceed the limits specified below:

Particulate Matter	24.8 lbs/hr	3.2 tons/yr
PM-10	24.8 lbs/hr	9.7 tons/yr
Sulfur Dioxide	0.9 lbs/hr	2.4 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	14.8 lbs/hr	37.8 tons/yr
Carbon Monoxide	3.1 lbs/hr	8.0 tons/yr
Volatile Organic Compounds	3.3 lbs/hr	5.0 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of

emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 2, 3, 4, 5, 8, 9, 11, and 12.  
(9 VAC 5-80-850)

18. **Visible Emission Limit** - Visible emissions from each cyclone shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-80-850)
19. **Visible Emission Limit** - Visible fugitive emissions resulting from the Rotochopper Grinder shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-850 and 9 VAC 5-50-260)
20. **Toxics/Hazardous Air Pollutants** - As of the date of this permit, the permittee is limited to use of the following toxic compounds or hazardous air pollutants (HAPs) in the product M-Gard W550 used in the coating/wood preservative process in the treatment of lumber:

<u>Toxic Compounds or HAPs</u>	<u>CAS Number</u>
Benzene	71-43-2
Toluene	108-88-3
Cumene	98-82-8
Xylene	1330-20-7

The permittee may use additional or equivalent toxic compounds or HAPs (listed in Attachment A) in the treatment of lumber under 9 VAC 5-50-160 D without obtaining a new permit provided the following conditions are met:

- a. Notification shall be given to the Director, Piedmont Region. Such notification shall be made within fifteen (15) days after the use of additional toxic compounds or HAPs and shall include identification of the toxic compound or HAP, the date the toxic compound or HAP was first used, and the anticipated maximum throughput of that compound in lbs/hr and tons/yr. Additional details of the notification should be arranged with the Director, Piedmont Region.
- b. The permittee shall operate this facility in compliance with 9 VAC 5 Chapter 50, Article 3, for all toxic compounds or HAPs.
- c. The permittee shall not use any toxic compound or HAP which would make the facility subject to federal emission standards in 40 CFR 61 or 40 CFR 63.
- d. If a permit is required, failure to obtain the permit prior to the change in process formulation or the use of any additional toxic compound or HAP may result in enforcement action.

(9 VAC 5-80-850)

## **RECORDS**

21. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
- a. Annual throughput of wood, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

- b. Annual throughput of the wood preservative chemical M-Gard W550 (or equivalent) used in the dip tank for the process of treating lumber, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- c. Annual consumption of diesel fuel, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- d. All fuel supplier certifications.
- e. Material Safety Data Sheets (MSDS) showing VOC content, toxic compound content or HAP content for wood preservatives used in the treatment of lumber.
- f. Operation, control device monitoring, maintenance, and monthly and annual inspection records for the two Koger air cyclones.
- g. Monthly and annual records of sawdust collected from both Koger air cyclones.
- h. Scheduled and unscheduled maintenance and operator training.
- i. Results of all stack tests and visible emission evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-850 and 9 VAC 5-50-50)

22. **Emission Testing** - The facility shall be constructed/modified/installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-80-880 and 9 VAC 5-80-850)

### **GENERAL CONDITIONS**

23. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130 and 9 VAC 5-80-850)



24. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Piedmont Region of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Piedmont Region in writing.  
(9 VAC 5-20-180 C and 9 VAC 5-80-850)
25. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.  
(9 VAC 5-20-180 I and 9 VAC 5-80-850)
26. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.  
(9 VAC 5-50-20 E and 9 VAC 5-80-850)

27. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:
- a. Knowingly makes material misstatements in the permit application or any amendments to it;
  - b. Fails to comply with the terms or conditions of this permit;
  - c. Fails to comply with any emission standards applicable to a permitted emissions unit;
  - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;



- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted;
  - f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.  
(9 VAC 5-80-1010)
28. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Piedmont Region of the change of ownership within 30 days of the transfer.  
(9 VAC 5-80-940)
29. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-860 D)

